

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
BERT W. ELLIOTT) Group Art Unit: 3633
)
Serial No.: 10/664,552) Examiner: Jeanette E. Chapman
)
Filed: September 18, 2003) Confirmation No.: 4288
)
For: LAMINATED STARTER SHINGLE) Attorney Docket: 25244A
FOR A ROOF COVERING)

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APPELLANT'S REVISED APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Honorable Sir:

Responsive to the Notification of Non-Compliant Appeal Brief mailed May 19, 2009, please find enclosed a revised Appeal Brief.

If any fees are required pertaining to this response, Applicant requests that all necessary fees are be charged to Deposit Account No. 50-0568.

Appellant accordingly requests that the Board of Patent Appeals and Interferences reverse the Examiner as to all rejections.

Respectfully submitted,

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I. Real Party in Interest

The real party of interest is Owens Corning Intellectual Capital, LLC, the assignee of record, which is a corporation organized and existing by virtue of the laws of the State of Delaware, having its principal place of business in Toledo, Ohio.

II. Related Appeals and Interferences

There are no other appeals or interferences that are known to Appellant, the Appellant's representative, or assignee which will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

III. Status of Claims

Claims 5, 13-14, 21, 28-30 and 32-40 are finally rejected. Claims 1-4, 6-12, 15-20, 22-27 and 31 are cancelled. Claims 5, 13-14, 21, 28-30 and 32-40 are appealed.

IV. Status of Amendments

Appellant's submission dated October 6, 2008, subsequent to the final Office Action dated July 22, 2008, has been considered and entered by the Examiner as stated in the in the Advisory Action dated October 20, 2008.

V. Summary of Claimed Subject Matter

A. Independent Claim 5

Appellant's Specification states on page 7, lines 1-5, and as further shown in Fig. 5, a roof deck (D) can be covered by laying a course (S) of starter shingles (48) in a side-by-side relationship at an eave edge (67) of a roof deck (D).

Further, on page 6, lines 15 and 16, the Specification indicates that the starter shingle (48) is a laminated starter shingle having an overlay sheet (50) and an underlay sheet (52).

Applicant's Specification states on page 7, lines 5-9, and as further shown in Fig. 5, covering shingles (68) are arranged in generally horizontal courses (C1 and C2) above the course (S) of starter shingles (48), the covering shingles (68) in each of the courses (C1 and C2) of covering shingles (68) being laid in a side-by-side relationship and horizontally offset from the covering shingles (68) in adjacent courses.

Applicant's Specification states on page 7, at lines 10-18, and as shown in Fig. 5, each covering shingle (68) of the courses (C1 and C2) of covering shingles (68) includes a headlap portion (74) and a butt portion (76), the butt portion (76) including a plurality of tabs (78) separated by cutouts (80).

Further, as stated on page 7, lines 21-23 of the Specification, and as further shown in Fig. 5, the starter shingles (48) include an exposed portion (82) extending between the tabs (78) of the covering shingles (68).

Applicant's Specification states on page 6, lines 25-27, and as further shown in Fig. 5, a height (H1) of the overlay sheet (50) is greater than a height (H2) of the underlay sheet (52).

B. Independent Claim 13

Applicant's Specification states on page 6, lines 5-16, and as shown in Fig. 5, a laminated starter shingle (48) comprises an underlay sheet (52) laminated below an overlay sheet (50).

Further, as stated on page 7, lines 1-9 of the Specification, and as shown in Fig. 5, the starter shingles (48) are used as part of a roof covering (66) on a roof. The roof covering (66) includes a plurality of successive generally horizontal courses of covering shingles (68) laid above a plurality of the starter

shingles (48). The covering shingles (68) in each of the courses (C1 and C2) of covering shingles (68) are laid in a side-by-side relationship and vertically offset from the covering shingles (68) in adjacent courses.

Further, as described on page 7, lines 21-23 of the Specification, and as further shown in Fig. 5, the starter shingles (48) include an exposed portion (82) visible between the tabs (78) of the covering shingles (68).

As described in the Specification on page 7 at lines 10-17, each covering shingle (68) is a laminated covering shingle comprising an overlay member (70) having a headlap portion (74) and a butt portion (76) and an underlay member (72) fixedly attached to a rear surface of the butt portion (74) of the overlay member (70).

Further, as described on page 8, lines 3-7 of the Specification, a difference between a height (H2) of the underlay sheet (52) of each starter shingle (48) and a height (H4) of the underlay member (72) of each covering shingle (68) is greater than about one inch.

C. Independent Claim 14

As described in the Specification on page 6 at lines 8-16, a laminated starter shingle (48) comprises an underlay sheet (52) laminated below an overlay sheet (50).

Applicant's Specification states on page 7, lines 1-9, and as shown in Fig. 5, the starter shingle (48) is used as part of a roof covering (66) on a roof. The roof covering (66) includes a plurality of successive generally horizontal courses (C1 and C2) of covering shingles (68) laid above a plurality of the starter shingles (48), the covering shingles (68) in each of the courses (C1 and C2) of covering shingles (68) being laid in a side-by-side relationship and vertically offset from the covering shingles (68) in adjacent courses.

Further, as described in the Specification on page 7 at lines 10-16, each covering shingle (68) of the courses (C1 and C2) of covering shingles (68) includes a headlap portion (74) and a butt portion (76), the butt portion (76) including a plurality of tabs (78) separated by cutouts (80).

Applicant's Specification states on page 7, at lines 19-23, and as shown in Fig. 5, the starter shingles (48) include an exposed portion (82) visible between the tabs (78) of the covering shingles (68).

As described in the Specification on page 6 at lines 25-27, the height H1 of the overlay sheet (50) is greater than a height H2 of the underlay sheet (52).

D. Independent Claim 21

Applicant's Specification states on page 7, at lines 1-4, and as shown in Fig. 5, a roof covering (66) comprises a course (S) of starter shingles (48) laid in a side-by-side relationship at an eave edge (67) of a roof deck (D).

As described in the Specification on page 6 at lines 8-16, a starter shingle (48) of the course (S) of starter shingles (48) is a laminated starter shingle (48) comprising an underlay sheet (52) laminated below an overlay sheet (50).

Further, as described in the Specification on page 7 at lines 5-10, a plurality of successive generally horizontal courses (C1 and C2) of covering shingles (68) are laid above the course (S) of starter shingles (48). The covering shingles (68) in each of the courses (C1 and C2) of covering shingles (68) being laid in a side-by-side relationship and vertically offset from the covering shingles (68) in adjacent courses.

Applicant's Specification states on page 7, at lines 10-18, and as shown in Fig. 5, each covering shingle (68) of the courses (C1 and C2) of covering shingles (68) includes a headlap portion (74) and a butt portion (76), the butt portion (76) including a plurality of tabs (78) separated by cutouts (80).

As described in the Specification on page 7 at lines 21-23, and as shown in Fig. 5, the starter shingles (48) include an exposed portion (82) visible between the tabs (78) of the covering shingles (68).

Further, as described in the Specification on page 7 at lines 10-10, and as shown in Fig. 5, each covering shingle (68) is a laminated covering shingle (68) comprising an overlay member (70) having a headlap portion (74) and a butt portion (76). An underlay member (72) is fixedly attached to a rear surface of the butt portion of the overlay member (70).

As described in the Specification on page 8 at lines 3-7, a difference between a height H2 of the underlay sheet (52) of each starter shingle (48) and a height H4 of the underlay member (72) of each covering shingle (68) is greater than about one inch

VI. Grounds of Rejection to be Reviewed on Appeal

Grounds of rejection are set forth in the final Office Action dated July 22, 2008, as:

A. Whether claims 5, 13-14, 21, 28-30, and 32-40 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 4,148,168 to Diamond (hereafter, "Diamond") in view of U.S. Patent No. 6,220,329 to King et al. (hereafter, "King") and U.S. Patent No. 6,174,403 to Steiner, Jr. et al (hereafter "Steiner").

VII. Argument

A. Rejection of claims 5, 13-14, 21, 28-30, and 32-40 under 35 U.S.C. §103(a) over Diamond in view of King and Steiner.

The Examiner argued on page 4 of the Final Office Action dated July 22, 2008, that it would have been obvious to modify the method of covering a roof deck of Diamond to include a laminated starter shingle of King and the exposed

portion of the shingle of King. The Examiner also argued it would have been obvious to make the laminate layers of different heights as disclosed in Steiner.

One of ordinary skill in the art of shingle design and process would be a person with at least a bachelor's degree in mechanical or chemical engineering, or in materials science, and this person would have at least five years of experience in shingle design or shingle process.

As discussed at page 8, third paragraph of Appellant's response dated October 6, 2008, the King reference does not disclose a laminated starter shingle. Rather, the King reference discloses a three-layered laminated covering roofing shingle. Applicant asserts a covering roofing shingle is different, both structurally and functionally, from a starter shingle. There are a number of reasons why the skilled artisan would conclude that the King reference merely discloses a laminated covering roofing shingle and fails to disclose a laminated starter shingle.

1. The King Reference Discloses the Structure of a Standard Laminated Covering Shingle

As discussed at page 8, third paragraph of Appellant's response dated October 6, 2008, the King reference discloses a three-layer laminated roofing shingle having a bottom layer (126), a middle layer (124) and a top layer (122). The laminated roofing shingles disclosed in the King reference are standard covering shingles intended to provide both weather resistance and an attractive appearance. One of ordinary skill in the art would understand that the roofing shingles disclosed in the King reference are intended to be installed in courses over starter shingles.

2. The King Reference is Silent as to Use as a Starter Shingle

As discussed at page 8, third paragraph of Appellant's response dated October 6, 2008, the laminated roofing shingles disclosed in the King reference are intended to provide both weather resistance and an attractive appearance,

both understood requirements of covering shingles. However, there is no mention, disclosure or suggestion in the King reference that the disclosed laminated roofing shingles can be used as starter shingles.

3. The King Reference Does Not Have the Required Structure of a Starter Shingle

On pages 3 and 5 of the outstanding Final Office Action dated July 22, 2008, the Examiner asserts the King reference discloses a starter shingle (126). As explained in Applicant's response dated October 6, 2008, at page 8 beginning in the third paragraph, the King reference discloses a three-layer laminated roofing shingle having a bottom layer (126), a middle layer (124) and a top layer (122).

As discussed in Applicant's Specification beginning at page 2, first paragraph, a starter strip is a unique first course of shingles applied along the lower or eave edge of a roof deck before the commencement of the application of standard shingles. One of ordinary skill in the art would understand that the term "starter shingles" means unique shingles applied at the eave prior to the application of the covering shingles. Starter shingles have unique structural requirements. First, a starter strip must be uninterrupted and free of tabs or slots to prevent leakage of water to the roof deck. Second, starter shingles must have a minimum of two layers of shingle material at all locations on the roof. The two layers of a starter strip provide protection beneath the first course of standard shingles where there is no headlap layer from a lower course of shingles. Additionally, the two layers of a starter shingle provide protection between the tabs of standard shingles in a subsequent covering course. The purpose of a starter strip is to provide a base for subsequent courses of covering shingles and to ensure proper weatherproofing of the roof system by sealing gaps beneath the covering shingles. A starter shingle must provide these functions while providing an attractive appearance when installed beneath the covering shingles.

In contrast, the King reference merely discloses a bottom layer (126) of a laminated shingle, the bottom layer (126) having a single thickness. Nothing in the King reference indicates the use of the bottom layer (126) as a starter strip.

4. The Bottom Layer of the King Reference is Not a Laminated Layer

On pages 3 and 5 of the outstanding Final Office Action dated July 22, 2008, the Examiner asserts the King reference discloses a starter shingle (126). Assuming just for the sake of argument that the bottom layer (126) is a starter shingle, the bottom layer (126) is not a laminated layer. Rather, the bottom layer (126) is merely a portion of finished single-layer asphalt composition shingle stock of the type used in conventional single layer asphalt roofing shingles (column 5, lines 29-33 of the King reference). In fact, there is no mention, disclosure or suggestion in the King reference that the bottom layer (126) has multiple layers.

5. The Suggested Structure is Inoperable for Its Intended Purpose

As explained in Applicant's response dated October 6, 2008, at page 8 beginning in the last paragraph, the combination of the cited references, as suggested by the Examiner, results in a structure that is inoperable for its intended purpose as a starter shingle for several reasons.

First, the laminated roofing shingle of the King reference includes raised portions (148, 150, 152 and 154) and lower portions (136, 138, 140 and 142). In the event the laminated roofing shingle of King is installed as a starter shingle and subsequently covered by a course of covering shingles, the lower portions (136, 138, 140 and 142) would be exposed beneath the course of covering shingles. The exposed lower portions (136, 138, 140 and 142) would form gaps in the roofing system. The formed gaps would prohibit proper weatherproofing and would provide an unsightly appearance. The formed gaps would not properly seal the roofing structure, resulting in water leakage leading to the roof deck.

Second, as explained in Applicant's Specification at page 2, beginning in the last paragraph and as discussed above, the laminated shingle disclosed in the King reference only provides a single thickness bottom layer (126).

Accordingly, the single thickness bottom layer (126) would not provide the necessary protection beneath the first course of standard covering shingles where there is no headlap layer from a lower course.

At least for these reasons, the laminated shingle as provided by the King reference cannot be used as a starter strip and the resulting combined structure using the King laminated shingle, as suggested by the Examiner, would be inoperable for the intended purpose and unacceptable as a starter shingle.

6. The King Reference cannot be Modified to be a Starter Single

As explained in Applicant's response dated October 6, 2008, at page 9 beginning in the first paragraph, the three-layer laminated roofing shingle disclosed in the King reference cannot be modified for use as a starter strip. As one of ordinary skill can appreciate, there are several standard practices for providing starter shingles including modifying a standard three tab single-layer shingle by cutting the shingles to remove the tabs and commercially purchasing available starter shingles. In order to use the King roofing shingle as a starter shingle, the King shingle would have to be cut lengthwise to remove the raised portions (148, 150, 152 and 154). In this event, the edges of the three layers (126, 124 and 122) would be exposed beneath the course of covering shingles. The exposed edges of the three layers, on such a starter shingle, would provide an unsightly appearance when installed beneath a subsequent course of laminated shingles. Therefore, the modification suggested by the Examiner would not result in an acceptable starter shingle.

7. The King Reference Does Not Suggest A Laminated Starter Strip

On pages 4 and 5 of the outstanding Final Office Action dated July 22, 2008, the Examiner asserts the King reference discloses a starter shingle in that

the same lies beneath other shingles and is a beginning to the course of laid shingles, hence the shingles of King can be used as starter shingles. Applicant asserts there is nothing in the King reference that mentions, discloses or suggests that the bottom layer (126) is a starter strip as would be understood by one of ordinary skill in the art. Accordingly, Applicant asserts that one of ordinary skill in the art would not be motivated to use the covering shingle of King as a starter shingle.

In conclusion, with respect to the contention that it would have been obvious to combine the Diamond, King and Steiner references to achieve the desired starter shingle, for the reasons stated above, the roof covering of the combined Diamond, King and Steiner references does not provide a roof covering including a starter shingle laid at an eave edge of a roof deck. The starter shingle has an overlay sheet and an underlay sheet, wherein the rear surface of the overlay sheet is attached to the front surface of the underlay sheet, thereby forming a laminated starter shingle. The roofing covering further includes covering shingles laid above the course of starter shingles and arranged in a side-by-side relationship and vertically offset from the covering shingles in adjacent courses. The height of the overlay sheet is greater than a height of the underlay sheet.

Accordingly, claims 5, 13-14, 21, 28-30, and 32-40 are non-obvious under 35 USC § 103(a) over Diamond in view of King and Steiner. Appellant respectfully requests reversal of the Examiner as to the rejection of claims 5, 13-14, 21, 28-30, and 32-40.

VIII. Claims Appendix

5. A method of covering a roof deck, the method comprising:

laying a course of starter shingles in a side-by-side relationship at an eave edge of a roof deck, wherein a starter shingle of the course of starter shingles is a laminated starter shingle comprising an underlay sheet laminated below an overlay sheet; and

laying a plurality of successive generally horizontal courses of covering shingles above the course of starter shingles, the covering shingles in each of the courses of covering shingles being laid in a side-by-side relationship and horizontally offset from the covering shingles in adjacent courses, wherein each covering shingle of the courses of covering shingles includes a headlap portion and a butt portion, the butt portion including a plurality of tabs separated by cutouts, and wherein the starter shingles include an exposed portion extending between the tabs of the covering shingles, wherein a height of the overlay sheet is greater than a height of the underlay sheet.

13. A laminated starter shingle comprising an underlay sheet laminated below an overlay sheet, the starter shingle used as part of a roof covering on a roof, the roof covering including a plurality of successive generally horizontal courses of covering shingles laid above a plurality of the starter shingles, the covering shingles in each of the courses of covering shingles being laid in a side-by-side relationship and vertically offset from the covering shingles in adjacent courses

wherein the starter shingles include an exposed portion visible between the tabs of the covering shingles,

wherein each covering shingle is a laminated covering shingle comprising an overlay member having a headlap portion and a butt portion and an underlay member fixedly attached to a rear surface of the butt portion of the overlay member, and

wherein a difference between a height of the underlay sheet of each starter shingle and a height of the underlay member of each covering shingle is greater than about one inch.

14. A laminated starter shingle comprising an underlay sheet laminated below an overlay sheet, the starter shingle used as part of a roof covering on a roof, the roof covering including a plurality of successive generally horizontal courses of covering shingles laid above a plurality of the starter shingles, the covering shingles in each of the courses of covering shingles being laid in a side-by-side relationship and vertically offset from the covering shingles in adjacent courses, wherein each covering shingle of the courses of covering shingles includes a headlap portion and a butt portion, the butt portion including a plurality of tabs separated by cutouts,

wherein the starter shingles include an exposed portion visible between the tabs of the covering shingles, and

wherein a height of the overlay sheet is greater than a height of the underlay sheet.

21. A roof covering comprising:
a course of starter shingles laid in a side-by-side relationship at an eave edge of a roof deck, wherein a starter shingle of the course of starter shingles is a laminated starter shingle comprising an underlay sheet laminated below an overlay sheet; and

a plurality of successive generally horizontal courses of covering shingles laid above the course of starter shingles, the covering shingles in each of the courses of covering shingles being laid in a side-by-side relationship and vertically offset from the covering shingles in adjacent courses,

wherein each covering shingle of the courses of covering shingles includes a headlap portion and a butt portion, the butt portion including a plurality of tabs separated by cutouts,

wherein the starter shingles include an exposed portion visible between the tabs of the covering shingles,

wherein each covering shingle is a laminated covering shingle comprising:

an overlay member having a headlap portion and a butt portion; and

an underlay member fixedly attached to a rear surface of the butt portion of the overlay member, and

wherein a difference between a height of the underlay sheet of each starter shingle and a height of the underlay member of each covering shingle is greater than about one inch.

28. The method according to Claim 5, wherein the overlay sheet has a headlap portion and a butt portion, and wherein the underlay sheet is laminated beneath the butt portion of the overlay sheet.

29. The method according to Claim 28, wherein the butt portion includes a butt edge and the underlay sheet includes a lower edge, and wherein the butt edge and the lower edge are vertically aligned to define a lower edge of the starter shingle.

30. The method according to Claim 29, wherein a lower edge of the covering shingles in a first course of the covering shingles is vertically aligned with the lower edge of the starter shingles.

32. The laminated starter shingle according to Claim 13, wherein the underlay sheet is laminated beneath the butt portion of the overlay sheet, and wherein the butt portion includes a butt edge and the underlay sheet includes a lower edge, and wherein the butt edge and the lower edge are vertically aligned to define a lower edge of the starter shingle, and wherein a lower edge of the covering shingles in a first course of the covering shingles is vertically aligned with the lower edge of the starter shingles.

33. The laminated starter shingle according to Claim 32, wherein the butt portions of the starter shingles have an overall color appearance that is substantially similar to an overall color appearance of the covering shingles.

34. The laminated starter shingle according to Claim 14, wherein the underlay sheet is laminated beneath the butt portion of the overlay sheet, and wherein the butt portion includes a butt edge and the underlay sheet includes a lower edge, and wherein the butt edge and the lower edge are vertically aligned to define a lower edge of the starter shingle, and wherein a lower edge of the covering shingles in a first course of the covering shingles is vertically aligned with the lower edge of the starter shingles.

35. The laminated starter shingle according to Claim 34, wherein the butt portions of the starter shingles have an overall color appearance that is substantially similar to an overall color appearance of the covering shingles.

36. The roof covering according to Claim 21, wherein the height of the overlay sheet is greater than the height of the underlay sheet.

37. The roof covering according to Claim 21, wherein the underlay sheet is laminated beneath the butt portion of the overlay sheet.

38. The roof covering according to Claim 37, wherein the butt portion includes a butt edge and the underlay sheet includes a lower edge, and wherein the butt edge and the lower edge are vertically aligned to define a lower edge of the starter shingle.

39. The roof covering according to Claim 38, wherein a lower edge of the covering shingles in a first course of the covering shingles is vertically aligned with the lower edge of the starter shingles.

40. The roof covering according to Claim 37, wherein the butt portions of the starter shingles have an overall color appearance that is substantially similar to an overall color appearance of the covering shingles.

IX. Evidence Appendix

NONE

X. Related Decisions Appendix

NONE